DEPARTMENT of ENVIRONMENTAL SERVICES Water Division - Watershed Management Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: ROBBINS POND		Lake Area (ha):	14.97
Town: RINDGE		Maximum depth (m):	2.0
County: Cheshir		Mean depth (m):	0.9
River Basin: Connect		Volume (m³):	136500
Latitude: 42°43'(Relative depth:	0.5
Longitude: 72°03'2		Shore configuration:	1.17
Elevation (ft):		Areal water load (m/yr	:): 32.12
Shore length (m):		Flushing rate (yr^{-1}) :	35.20
Watershed area (ha):	904.4	P retention coeff.:	0.42
<pre>% watershed ponded:</pre>	0.0	Lake type: natur	al w/dam

BIOLOGICAL:		10 February 1999	2 September 1998
DOM. PHYTOPLANKTON (% TOTAL)	#1	NO WINTER PLANKTON	MALLOMONAS 75%
	#2	ANALYZED	DINOBRYON 25%
	#3		
PHYTOPLANKTON ABUNDANCE (units/n	nL)		
CHLOROPHYLL-A (µg/L)			16.78
DOM. ZOOPLANKTON (% TOTAL)	#1		KELLICOTTIA 94%
	#2		
	#3		
ROTIFERS/LITER			13516
MICROCRUSTACEA/LITER			291
ZOOPLANKTON ABUNDANCE (#/L)			13807
VASCULAR PLANT ABUNDANCE			Very abundant
SECCHI DISK TRANSPARENCY (m)			0.8
BOTTOM DISSOLVED OXYGEN (mg/L)		9.1	4.9
BACTERIA (E. coli, #/100 ml)	#1		< 1
	#2		
	#3		

SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None Hypolimnion volume (m^3) : None Anoxic volume (m^3) : None

CHEMICAL:			ROBBINS RINDGE	POND	
	10 Febru	uary 1999	2	September	1998
DEPTH (m)	. 1.0		1.0		
pH (units)	4.9		5.5		
A.N.C. (Alkalinity)	-0.2		1.1		
NITRATE NITROGEN	0.12		< 0.05		
TOTAL KJELDAHL NITROGEN	0.20		0.60		
TOTAL PHOSPHORUS	0.008		0.022		
CONDUCTIVITY (µmhos/cm)	77.6		40.3		
APPARENT COLOR (cpu)	40		140		
MAGNESIUM			0.40		
CALCIUM			1.6		
SODIUM			4.7		
POTASSIUM			0.54		
CHLORIDE	15		7		
SULFATE	, 7		3		
TN : TP	40		27		
CALCITE SATURATION INDEX			5.6		

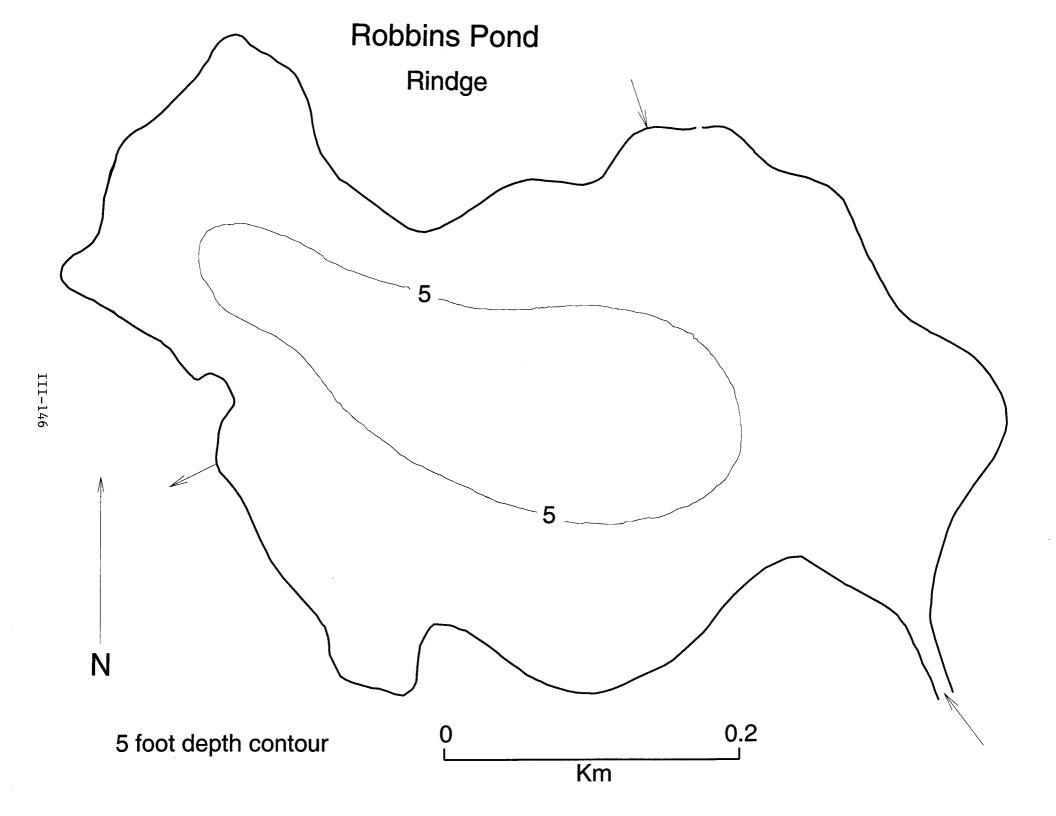
All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1998

D.O. S.D.		PLANT	CHL TOTAL		CLASS	
**	5	6	3	14	Eutro.	

COMMENTS:

- 1. aka Harrington Pond.
- 2. Robbins Pond was previously surveyed and classified in 1991 and was rated eutrophic in both years.
- 3. No public access; must travel through a field and section of woods to reach the pond.
- 4. This is a shallow, naturally eutrophic beaver pond that drains an extensive wetland area and contains dark tea-colored water. There is no development around the shoreline.
- 5. Zooplankton, particularly the rotifer *Kellicottia*, were very abundant (the most of any pond in our database), indicating the high primary productivity (algal abundance) was moving up the food chain.



FIELD DATA SHEET

LAKE: ROBBINS POND

DATE: 09/02/1998

TOWN: RINDGE WEATHER: OVERCAST & WARM

BA1E: 03/02/1330	WEITI	ER: OVERCASI & WAR	CP1
DEPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGEN SATURATION
0.1	21.8	6.0	69 %
1.0	21.0	5.2	59 %
1.5	20.8	4.9	54 %

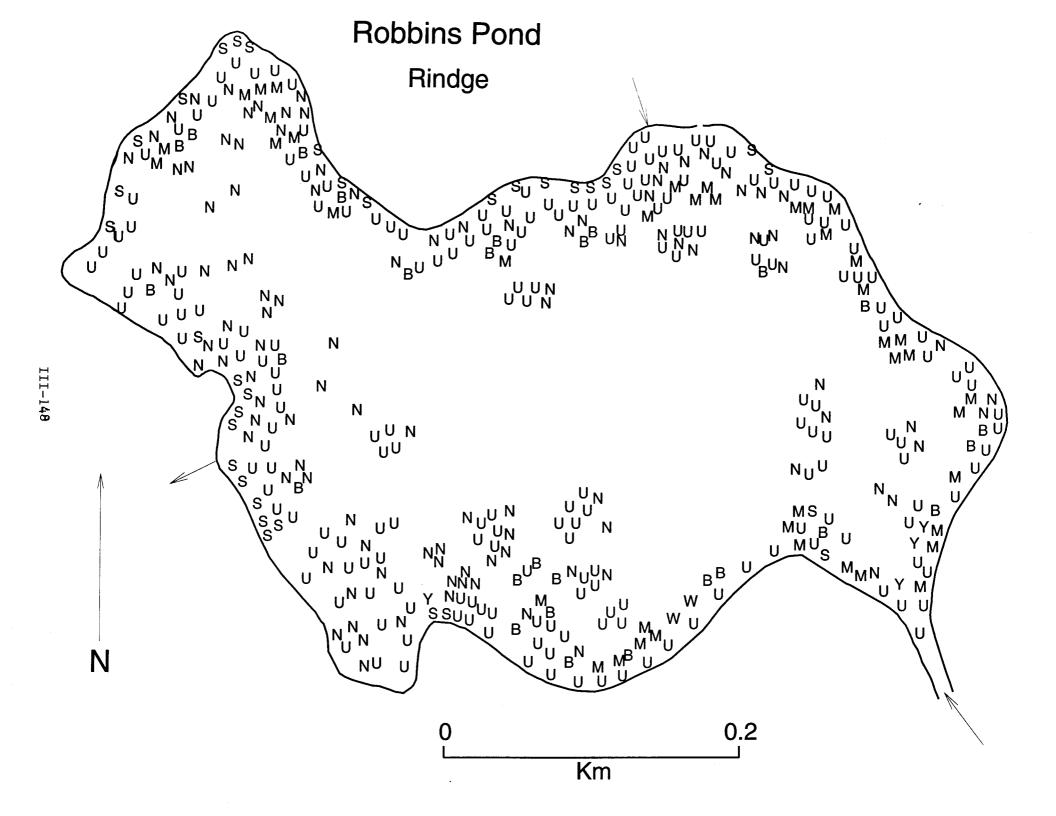
SECCHI DISK (m): 0.8

COMMENTS:

BOTTOM DEPTH (m): 1.8

TIME: 1215

*Dissolved oxygen values are in mg/L



AQUATIC PLANT SURVEY

LAK	E: ROBBINS POND	TOWN: RINDGE	DATE: 09/02/1998	
Vo.	PLANT	NAME	A DUMPANCE	
Key	GENERIC	COMMON	ABUNDANCE	
U	Utricularia	Bladderwort	Abundant	
N	Nymphaea	White water lily	Abundant	
В	Brasenia schreberi	Water shield	Common	
M	Myriophyllum humile	Water milfoil	Common	
s	Sparganium	Bur reed	Common	
Y	Nuphar	Yellow water lily	Scattered	
R	Potamogeton robbinsii	Robbins pondweed	Scattered	
W	Potamogeton natans	Floating-leaf pondweed	Scattered	
	,			
		OVERALL ABUNDANCE	E: Very abundant	

GENERAL OBSERVATIONS:

- 1. Emergent and floating-leaf plants (mostly *Nymphaea*) were abundant along the entire shore and submerged plants (mostly bladderwort) were abundant in areas of open water (more than depicted on the map) resulting in abundant plant growth throughout the pond.
- 2. An active beaver hut and a large-log beaver dam were present.